Department of Commerce
Osmania University
Computer Lab – Practical Question Bank
B.Com (Business Analytics)
Semester I
DATA DRIVEN DECISION MAKING

Time: 60 Minutes

Record	**: 10**
Skill Test	**: 15**
Viva - Voce	**: 10**
Total Marks	**: 35**

Use Microsoft Excel to solve the following:

1. Define the following:
   a. Workbook, Worksheet
   b. Cells
   c. Number of rows and columns in a worksheet
   d. Excel File Extensions
   f. Relative reference , absolute reference

2. Present the Tabs, Groups and their functions in a tabular form in excel.
   a. File
   b. Home
   c. Insert
   d. Page Layout
   e. Formulas
   f. Data
   g. Review
   h. View

3. Copy the table created in **Question 2** into a new worksheet, then perform the following steps:
   a. Change the font style to a new font of your choice.
   b. Increase the font size to **14**.
   c. Insert a new row above the table, merge the cells across the table width, and type an appropriate heading for the table. Make the font bold and Italic.
   d. Fill the merged heading cell with **Blue** color and change the font color to **White**.
   e. Apply borders to the entire table. Use **thick borders** for each tab's name.

4. Using the table created in **Question 3**, adjust the alignment of the text as follows:
   a. Align all text in the first column (**Tab Name**) to **Center** horizontally and **Middle** vertically.
   `b. Align all text in the second column (**Group**) to **Left** horizontally and **Top** vertically.
   c. Align all text in the third column (**Main Functions**) to **Justify**.

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d. Merge and center the heading row (if not already done).
e. Adjust the row height so that all text is clearly visible without cutting off.

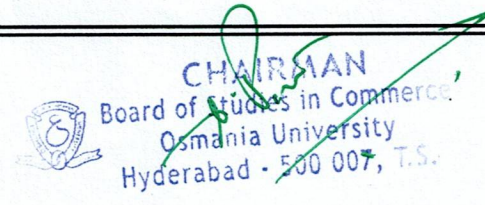
5. Create a data set in a new worksheet with the following columns:
S.No., Name of the Student, Data of Birth, Age as on Today, Stream, College
Instructions:
a. Enter details for 10 students of your choice
b. Ensure DOB is entered in dd-mm-yyyy format
c, Keep the Age column blank for now
d. Set the column headings in bold and fill them with light gray back ground colour
e. Apply borders to the table.

6. Copy the table created in Question 5 in a new sheet. Using the shortcut keys of keyboard, perform the following:
a. Make the student name column bold and italic
b. Increase the font size of DOB to 14.
c. Fill each column with different colour of your choice with short cut keys.
d. Create all borders for the table.
e. Create a thick border with each of the column.

7. Copy the table created in Question 5 in a new sheet.
a. Insert a row above, Merge the cells and give heading as Student Details -2025
b. Adjust the column width to the contents.
c. Adjust the row width to contents.
d. Increase Row height to 25 and column width to 10
e. Hide Age column , save the file.

8. Copy the table created in Question 5 in a new sheet.
a. Mention the different data types and where are they aligned in the cell.
b. Align the text column to the centre.
c. Wrap the College Name and location.
d. Insert a column to the left of the table and merge all 11 rows. Give the title of the table of Student details. Align it vertically in the column created.
e. Align each of the column headings to angle clockwise direction.

9. Copy the table created in Question 5 in three different sheets.
a. Rename the sheet as "Student Details 1", "Student Details 2", "Student Details 3"
b. Give Tab colour as Green., Yellow and pink to all the three tabs
c. Delete the sheet student details-2 from the workbook.
d. Create a copy of student details 3 and name it as "Student Details 4"
e. Save the file as "Student details" in your system.



10. Create a table with 15 rows having the following details.
A sample is given

S.No.	Name of the student	Sem I					
		ENG	II LANG	BOM	FA-1	DDDM	TOTAL MARKS
1	Ravi Kiran S	67	88	65	66	94	380
2	Sreeja M	89	72	97	68	88	414

a. Align all details to the centre of the cell.
b. Bold the headings using short cut key.
c. Increase the font size to 16 by using short cut key
d. Use italics to the students names.
e. Give colour to the columns.

11.

S.No.	Item Name	Quantity	Unit Price	Total Price	Purchase Date
1	Pen	25.235	5.5		12/1/2025
2	Notebook	12	15		5/2/2025
3	Pencil Box	8	45.25		18-01-2025
4	Eraser Pack	41.35	8.75		22-02-2025
5	Marker	30.45	12.5		28-01-2025
6	Ruler	18.96	6		1/3/2025
7	Highlighter	10	25.4		15-02-2025
8	Stapler	5	120.99		10/3/2025
9	Glue Stick	30.83	9.35		17-02-2025
10	File Folder	40	4.75		25-01-2025

For the data given above
a. Format quantity as Number with no decimals.
b. Format Unit Price as Currency
c. Calculate Total Price = Quantity * Unit Price
d. Add currency to Total Price column
e. Format Purchase date as Long Date.

12. In a new worksheet, create the following using the Fill Series feature.
a. in Column A, enter the numbers 1 in the first row. Use Fill Series to continue the sequence up to 20 with step 1 (Linear)
b. In Column B, enter the 2 in the first row. Use fill series to continue the sequence up to 20 with step value 2.
c. In column C, enter 20 in the first row. Use Fill series to continue the sequence up to 200 using step value 25.
d. In column D, enter the number 250. Use Fill Series to continue the sequence up to 0 using the step value as -25.

e. In Column E, enter the number 45. Use Fill Series to continue the sequence up to -20 using the step value as -5.

13. In a new work sheet, create the following using Fill Series Growth Features.
    a. in Column A, enter the numbers 1 in the first row. Use Fill Series to continue the sequence up to 200 with step 2.
    b. In Column B, enter the 2 in the first row. Use fill series to continue the sequence up to 400 with step value 2.
    c. In column C, enter 3 in the first row. Use Fill series to continue the sequence up to 1500 using step value 5.
    d. In column D, enter the number 25. Use Fill Series to continue the sequence up to 2500 using the step value as 5.
    e. In Column E, enter the number 15. Use Fill Series to continue the sequence up to -1500 using the step value as 3.

14. Use Auto fil feature to complete the following:
    a. To write the days of the week upto 10 rows.
    b. To write the months of a year upto 15 rows.
    c. Create a list –"Gold, Silver, Bronze, Copper" in four rows. Auto fill the next 15 rows.
    d. In a column enter the day of a week. Auto fill the next 12 rows.
    e. In a column enter the month of a week. Auto fill the next 20 months.

15. Use Date Feature to fill the series.
    a. Enter a date in a cell. Check in which format the date is written. Is it in dd/mm/yyyy or mm/dd/yyyy.
    b. Try to change the format to mm/dd/yyyy.
    c. Select a date of your choice. Fill the next 15 days using Date Feature.
    d. Select a date of your choice. Fill the next 15 months using Date Feature.
    e. Select a date of your choice. Fill the next 15 years using Date Feature.

16. Using the Student Details Data set created in Question 5:
    a. Sort the list of list of students alphabetically by Name of the student (A-Z)
    b. Sort the list of list of students alphabetically by Name of the student (Z-A)
    c. Sort the list of students in the descending order of their age.
    d. Sort the list of students by Stream.
    e. Sort the list of students by College.

The sale of 5 products A,B,C,D,E during 2024 is given below.

Month	Products				
	A	B	C	D	E
Jan	7360	7072	7952	5324	7262
Feb	7478	7777	6037	7393	8791

Mar	7316	6269	6609	4248	8690
Apr	7412	6366	6144	5940	7747
May	8143	7209	7255	6778	7300
Jun	7407	7166	7223	6931	6699
Jul	8487	8548	6070	6252	9485
Aug	7414	6923	7430	5248	10096
Sep	8458	6174	6094	5767	10320
Oct	7097	7144	7290	6338	7066
Nov	7501	7871	6647	4139	7962
Dec	8132	8612	6793	6183	9080

Use the above data set to answer Q17 to Q25.

17. Apply conditional formatting to highlight all sales values
    a. Greater than 9000 in light red colour.
    b. Less than 6000 in green colour.
    c. Between 6000 and 9000 in Blue colour
    d. Equal to 6293 in dark red.

18. Apply Conditional Formatting to highlight the **month names** based on the following:

    a. Highlight the month names corresponding to the **Top 3 sales** in **Product A**.

    b. Highlight the month names corresponding to the **Top 5 sales** in **Product C**.

    c. Highlight the month names corresponding to the Bottom 3 **sales** in **Product B**.

    d. Highlight the month names corresponding to the **Top 5% sales** in **Product D**.

    e. Highlight the month names corresponding to the Bottom **3% sales** in **Product E**.

19. Apply Data Bars
    a. To the sales values of the products so that the higher values show longer bars.
    b. Change the color of the data bars to your choice.
    c. Format the cells so that the number and the bards do not overlap.
    d. Adjust the row height, and column width to give more clarity of the information.
    e. Format the table and its borders and make the font bold.

20. Copy the table given above.
    a. Apply the colour Scales to the data set.
    b. Change to Green colour.
    c. What is your inference from these colour scales
    d. Write your interpretation as which colour defines what sales values.
    e. Explain how colour scales help us in understanding the data more easily.

21. a. Apply Icon Sets (3 traffic lights) to the sales values so that the high values show in green light, medium values in yellow and low values in Red.
b. Apply Icon Sets (Directional) to the data set and give your inferences.
c. Apply Icon Sets (Shapes 4 set) to the data set and give your inferences.
d. Give Ratings to the data set and give your inferences. (Apply all different types of ratings)

22. For the table given above select columns Month and any product.
    a. Insert a chart.
    b. Give Chart Title
    c. Give Axis title
    d. Change the chart design
    e. Enter data labels

23. For the table given above select columns Month and any two product.
    a. Insert a chart.
    b. Give Chart Title
    c. Give Axis title
    d. Change the chart design
    e. Enter data labels

24. From the table given above, select any month February and find the composition of sales of all the products in that month.
    a. Inset a pie chart
    b. Give chart title
    c. Give data labels
    d. Format the picture
    e. Give your inferences.

25. From the table given above, select any month September and find the composition of sales of all the products in that month.
    a. Inset a pie chart
    b. Give chart title
    c. Give data labels
    d. Format the picture
    e. Give your inferences.

26. From the table above,
    a. Draw a line chart by taking month and Product A Sales.
    b. Give chart title
    c. Give data labels
    d. Format the picture
    e. Give your inferences

27. From the table above

a. Draw the line chart by taking month and sales of any two products.
b. Give chart title
c. Give data labels
d. Format the picture
e. Give your inferences

28. From the table above
    a. Create area chart with month and all the sales of five products
    b. Give chart title
    c. Give data labels
    d. Format the picture
    e. Give your inferences

29. From the table above,
    a. Draw a stacked bar chart.
    b. Give chart title
    c. Give data labels
    d. Format the picture
    e. Give your inferences

30. From the table above,
    a. Draw a Funnel chart.
    b. Give chart title
    c. Give data labels
    d. Format the picture
    e. Give your inferences

31. The Employees names in an Organization was entered in the following format.

david michael smith
saRah lOuise paRKer
john ANdRew tAyloR
eMilY rOSe haRRris
robErt jaMEs WilSon
linda maRie claRk
tHomAs heNry lEwIs
sophia gRace hAll
charles Edward Martin

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Olivia mAy aLLen

Enter the data in your excel workbook and perform the following.

31. Use TEXT functions and perform
    a. Convert the text into upper case format
    b. Convert the text into lower case
    c. Make the first letter of each word into capital letter.
    d. Eliminate the extra spaces that are between the words
    e. Choose the best Text function to eliminate the extra spaces and also make every first letter into capital form.

32. For the following data set

David Michael Smith
Sarah Louise Parker
John Andrew Taylor
Emily Rose Harrris
Robert James Wilson
Linda Marie Clark
Thomas Henry Lewis
Sophia Grace Hall
Charles Edward Martin
Olivia May Allen

Perform the following
    a. Find the number of characters in the text.
    b. Extract 5 characters from start each of the text.
    c. Extract 6 characters from the end of each text
    d. Extract 5 characters from the middle of a text string.
    e. Select the text, and find Grace. Highlight it.

33. Copy the data set in Excel sheet.

S.No	Name	Date of Birth	Joining Date
1	David	12/5/1998	15-07-2022
2	Sarah	3/11/2000	10/6/2023
3	John	25/02/1995	1/1/2020
4	Emily	14/09/1999	20/04/2021
5	Robert	6/3/1997	12/10/2022
6	Linda	29/07/1994	5/5/2020
7	Thomas	17/01/2001	25/08/2023

8	Sophia	8/6/1996	18/03/2021
9	Charles	30/10/1993	28/09/2019
10	Olivia	11/12/1998	14/02/2022

Now perform Date functions
a. Using TODAY() function, find today's date in cell F1.
b. Using the YEAR() function, extract the birth year of each person in a new column called "Birth Year".
c. Using MONTH() function, extract the month number of each Joining Date in a new column called "Joining Month".
d. Using Day() function, extract the day number of each "Date of Birth" in a new column called "Birthday".

34. From the table above
    a. Using DATE() function, create a new date for each person by combining the **Birth Year**, **Birth Month**, and the day "01" in a column called "Custom Date".
    b. Using the **EDATE()** function, find the date that is 6 months after each "Joining Date" in a column called "6 Months Later".
    c. Using the **EOMONTH()** function, find the last day of the month for each "Joining Date" in a column called "Month End".

35. From the table above
    a. Using the **DATEDIF()** function, find the **age in years** of each person as of today in a column called "Current Age".
    b. Using the **NETWORKDAYS()** function, calculate the number of working days between each "Joining Date" and today. Assume Saturday and Sunday as weekends.
    c. Using the **TEXT()** function, display each "Joining Date" in the format "dd-mmm-yyyy" (e.g., 15-Jul-2022).

36.

S.No	Name	Marks	Grade	Remarks
1	David	85	A	Passed
2	Sarah	72	B	Passed
3	John			Absent
4	Emily	65	C	Passed
5	Robert	90	A	Passed
6	Linda			Absent
7	Thomas	58	D	Passed
8	Sophia	77	B	Passed
9	Charles	40	E	Passed
10	Olivia			Absent

a. Using COUNT(), find the total number of students who have marks entered (non-empty cells in "Marks" column).

b. Using COUNTA(), find the total number of students who have any value entered in the "Name" column.

37. From the table given above
a. Using COUNTBLANK(), find the number of students whose marks are missing.

b. Using COUNTIF(), count the number of students who scored more than 75 in "Marks" column.

38. From the table given above

a. Using COUNTIFS(), count the number of students who scored more than 70 and got Grade A or B.

b. Using COUNTIFS(), count the number of students who scored less than 70 and got C or D grade.

39. From the above table
   a. Using **Go To Special**, select all blank cells in the "Marks" column and fill them with 0.

   b. Using **Go To Special**, select all blank cells in the "Marks" column and fill them with Yellow colour.

   c. Using **Go To Special**, select all blank cells in the "Marks" column and fill them "Not applicable"

40.

S.No	Name	Marks	Grade	Stream
1	David	85	A	Science
2	Sarah	72	B	Commerce
3	John	66	C	Science
4	Emily	65	C	Arts
5	Robert	90	A	Science
6	Linda	78	B	Commerce
7	Thomas	58	D	Arts
8	Sophia	77	B	Science
9	Charles	40	E	Commerce
10	Olivia	88	A	Arts

From the above table find
a.Using SUMIF(), find the total marks of students from the Science stream.
b. Using SUMIF(), find the total marks of students with Grade A.

41. From the above table
a. Using **AVERAGEIF()**, find the **average marks** of students from the **Commerce** stream.
b. Using **AVERAGEIF()**, find the **average marks** of students with **Grade B**.

42. From the above table
a. Using **MAXIFS()**, find the **highest marks** among students in the **Arts** stream.
b. Using **MAXIFS()**, find the **highest marks** among students with **Grade C**.

43. From the above table
a. Using **MINIFS()**, find the **lowest marks** among students in the **Science** stream.
b. Using **MINIFS()**, find the **lowest marks** among students with **Grade B**.

44.

Deptname – EmpID
D – 45001
HR – 45001
S – 45203
O – 45301
HR – 45005
HR – 45010
S – 45210
S – 45220
S – 45230
D – 45004

From the table give above split the department name and Emp ID

Table for Questions 46 to 50

Customer ID	Customer Name	Contact Name	Street Name	City	Postal Code	Country
3124	Alfreds Futterkiste	Maria Anders	Obere Str. 57,	Berlin	12209	Germany
1238	Ana Trujillo helados	Ana Trujillo	avda. de la Constitución 2222	Mexico city	5021	Mexico
4562	Antonio MorenoTaquería	antonio moreno	mataderos 2312	Mexico city	5023	Mexico
678	Around the Horn	thomas hardy	120 Hanover Sq.	NY	WA1 1DP	USA
2314	Berglunds snabola	Christina Berglund	Berguvsv,gen 8	Sydney	33-22	Australia
3657	Amit Mishra	Maria Anders	Obere Str. 57	Sydney	65-332-3	Australia
7890	williami sanuo	Ana Trujillo	Avda. de la Constitucion 2222	Sydney	43433	Australia
56789	Sonio Moreno	Antonio Moreno	120 Jefferson St.,Riverside	NJ	8075	US
3657	Amit Mishra	Maria Anders	Obere Str. 57	Sydney	65-332-3	Australia
2314	Berglunds snabbkp	Christina Berglund	Berguvsv,gen 8	Sydney	33-22	Australia

45. a. Concatenate Street Name and City.
b. Get the complete address of the customers by concatenating the columns Street name, City, Postal code and Country.

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46. a. Remove the Extra spaces from Customer Name using Excel function.
    b. Also capitalize every first letter of the Customer name.
    c. Arrange the customer as per the Alphabetical order (A-Z)

47. a. Arrange the customer ID in the ascending order.
    b. Arrange the data accordingly.

48. a. Filter how many customers are from different countries.
    b. How many customers are from Sydney.

49. Identify and remove **duplicate rows** based on the *Customer ID* column.

50. Using **Text to Columns**, split the *Customer Name* column into *First Name* and *Last Name* (or remaining part of the name).